

## CLAIMS

What is claimed is:

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1. A method in a data processing system for displaying versions of source code, each version reflecting an instance in an edit history, the method comprising the steps of:  
5 determining a language of the source code;  
storing indications of the edits to the source code;  
converting the source code with the indications of the edits from the language into a language-neutral representation;  
10 using the language-neutral representation to display the source code in the language with the indications of the edits; and  
using the language-neutral representation to display a corresponding graphical representation of the source code with the indications of the edits.

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2. The method of claim 1, wherein the source code and the corresponding graphical representation of the source code are displayed sequentially.

3. The method of claim 1, wherein a rate at which the source code with the indications of the edits is displayed is adjustable.

4. The method of claim 1, wherein the source code with the indications of the edits is displayed in reverse order.

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5. The method of claim 1, wherein the graphical representation is one of the group consisting of a class diagram, a use case diagram, a sequence diagram, a collaboration diagram, a state transition diagram, an activity diagram, a package diagram, a component diagram and a deployment diagram.

6. A method in a data processing system for displaying versions of source code, each version reflecting an instance in an edit history, the method comprising the steps of:  
Aa storing indications of the edits to the source code; and  
displaying the versions of the source code with the indications of the edits.

5 7. The method of claim 6, wherein the versions of the source code are displayed sequentially.

C1 8. The method of claim 6, wherein a rate at which the source code with the indications of the edits is displayed is adjustable.

9. The method of claim 6, wherein the source code with the indications of the  
10 edits is displayed in reverse order.

10. The method of claim 6, wherein the versions of the source code are displayed with a corresponding graphical representation for each version.

Sub 11. The method of claim 10, wherein the step of displaying the versions of source  
As code comprises the steps of:

15 determining a language of the source code;

converting the source code with the indications of the edits from the language into a  
language-neutral representation;

using the language-neutral representation to display the source code in the language  
with the indications of the edits; and

20 using the language-neutral representation to display the corresponding graphical  
representation of the source code with the indications of the edits.

C1 12. The method of claim 10, wherein the graphical representation is one of the  
group consisting of a class diagram, a use case diagram, a sequence diagram, a collaboration  
diagram, a state transition diagram, an activity diagram, a package diagram, a component  
25 diagram and a deployment diagram.

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13. A method in a data processing system for displaying versions of source code, the method comprising the steps of:

storing an edit to the source code;

displaying the source code and a graphical representation of the source code; and

5 displaying the source code with the edit and a graphical representation of the source code with the edit.

14. The method of claim 13, wherein the step of displaying the source code comprises the steps of:

determining a language of the source code;

10 converting the source code from the language into a language-neutral representation; and

01 using the language-neutral representation to display the graphical representation of the source code.

15 15. The method of claim 13, wherein the step of displaying the source code with the edit comprises the steps of:

converting the source code with the edit from the language into a language-neutral representation; and

using the language-neutral representation of the source code with the edit to display the graphical representation of the source code with the edit.

20 16. The method of claim 13, wherein the source code is displayed after the source code with the edit is displayed.

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17. A computer-readable medium containing instructions for controlling a data processing system to perform a method, the data processing system having versions of source code, each version reflecting an instance in an edit history, the method comprising the steps of:

- 5       determining a language of the source code;  
storing indications of the edits to the source code;  
converting the source code with the indications of the edits from the language into a language-neutral representation;  
using the language-neutral representation to display the source code in the language  
10       with the indications of the edits; and  
using the language-neutral representation to display a corresponding graphical representation of the source code with the indications of the edits.

18. The computer-readable medium of claim 17, wherein the source code and the corresponding graphical representation of the source code are displayed sequentially.

15       19. The computer-readable medium of claim 17, wherein a rate at which the source code with the indications of the edits is displayed is adjustable.

20. The computer-readable medium of claim 17, wherein the source code with the indications of the edits is displayed in reverse order.

20       21. The computer-readable medium of claim 17, wherein the graphical representation is one of the group consisting of a class diagram, a use case diagram, a sequence diagram, a collaboration diagram, a state transition diagram, an activity diagram, a package diagram, a component diagram and a deployment diagram.

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22. A computer-readable medium containing instructions for controlling a data processing system to perform a method, the data processing system having versions of source code, each version reflecting an instance in an edit history, the method comprising the steps of:

- 5 storing indications of edits to the source code; and  
displaying the versions of the source code with the indications of the edits.

23. The computer-readable medium of claim 22, wherein the versions of the source code are displayed sequentially.

24. The computer-readable medium of claim 22, wherein a rate at which the  
10 source code with the indications of the edits is displayed is adjustable.

25. The computer-readable medium of claim 22, wherein the source code with  
the indications of the edits is displayed in reverse order.

26. The computer-readable medium of claim 22, wherein the versions of the source code are displayed with a corresponding graphical representation for each version.

27. The computer-readable medium of claim 26, wherein the step of displaying  
15 the versions of source code comprises the steps of:

- determining a language of the source code;  
converting the source code with the indications of the edits from the language into a  
language-neutral representation;  
20 using the language-neutral representation to display the source code in the language  
with the indications of the edits; and  
using the language-neutral representation to display the corresponding graphical  
representation of the source code with the indications of the edits.

28. The computer-readable medium of claim 26, wherein the graphical representation is one of the group consisting of a class diagram, a use case diagram, a sequence diagram, a collaboration diagram, a state transition diagram, an activity diagram, a package diagram, a component diagram and a deployment diagram.

5 Sub A9 29. A computer-readable medium containing instructions for controlling a data processing system to perform a method, the data processing system having source code, the method comprising the steps of:

storing an edit to the source code;

displaying the source code and a graphical representation of the source code; and

10 displaying the source code with the edit and a graphical representation of the source code with the edit.

30. The computer-readable medium of claim 29, wherein the step of displaying the source code comprises the steps of:

determining a language of the source code;

15 converting the source code from the language into a language-neutral representation;

and

20 C1 using the language-neutral representation to display the graphical representation of the source code.

31. The computer-readable medium of claim 29, wherein the step of displaying the source code with the edit comprises the steps of:

25 converting the source code with the edit from the language into a language-neutral representation; and

using the language-neutral representation of the source code with the edit to display the graphical representation of the source code with the edit.

32. The computer-readable medium of claim 29, wherein the source code is displayed after the source code with the edit is displayed.

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5 33. A data processing system comprising:  
a secondary storage including source code;  
a memory device including:  
a program that stores indications of edits to the source code into the memory  
device, and that displays the source code with the indications of the  
edits and a corresponding graphical representation of the source code  
with the indications of the edits; and  
a processor for running the program.

10 34. The data processing system of claim 33, wherein the source code with the  
indications of the edits are displayed sequentially.

35. The data processing system of claim 33, wherein a rate at which the source  
code with the indications of the edits is displayed is adjustable.

36. The data processing system of claim 33, wherein the source code with the  
indications of the edits is displayed in reverse order.

15 37. The data processing system of claim 33, wherein the program further  
determines the language of the source code, converts the source code with the indications of  
the edits from the language into a language-neutral representation, uses the language-neutral  
representation to display the source code with the indications of the edits in the language,  
and uses the language-neutral representation to display the corresponding graphical  
20 representation of the source code with the indications of the edits.

38. The data processing system of claim 37, wherein the memory device further  
comprises a transient meta model, wherein said transient meta model stores the language-  
neutral representation of the source code.

39. The data processing system of claim 33, wherein the graphical representation is one of the group consisting of a class diagram, a use case diagram, a sequence diagram, a collaboration diagram, a state transition diagram, an activity diagram, a package diagram, a component diagram and a deployment diagram.

5 <sup>Sub</sup> 40. A system for displaying versions of source code, each version reflecting an instance in an edit history, the system comprising:

means for storing indications of the edits to the source code; and

means for displaying the versions of the source code with the indications of the edits.